



chain nodes :

4 5 12 13 14 15

ring nodes :

1 2 3 6 7 8 9 10 11

chain bonds :

2-4 4-5 7-12 11-15 12-13 13-14 14-15

ring bonds :

1-2 1-3 2-3 6-7 6-8 7-8 9-10 9-11 10-11

exact/norm bonds :

1-2 1-3 2-3 6-7 6-8 7-8 9-10 9-11 10-11

exact bonds :

2-4 4-5 7-12 11-15 12-13 13-14 14-15

Match level :

1:Atom 2:Atom 3:Atom 4:CLASS5:CLASS6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:CLASS
13:CLASS14:CLASS15:CLASS

fragments assigned product role:

containing 6

fragments assigned reactant/reagent role:

containing 1

US 20040102647 A1	US-PGPUB	20040527	3	Acetaldehyde
dehydration to produce ethyne		562/532	585/534	585/534
US 20030040654 A1	US-PGPUB	20030227		Composition for
acetylene production and method for treating lime slurry by-product from acetylene				
production	585/534	585/638	585/534	
US 20020000085 A1	US-PGPUB	20020103		Method for
converting natural gas to liquid hydrocarbons			60/772	429/17; 518/703;
585/534; 585/540; 60/39.34; 60/645	585/534			
US 6967256 B2	USPAT	20051122		Formation of
enediynes by reductive coupling followed by alkyne metathesis				556/58
502/152; 549/206; 556/136; 556/140; 556/43; 556/46; 585/534; 585/643				
585/534				
US 6869279 B2	USPAT	20050322		Reactor for high-
temperature reactions and use	431/353	585/539		
US 6849664 B2	USPAT	20050201		Process for disposing
biocide-containing cooling water	514/762	210/749; 210/764; 422/28;		
422/29; 422/30; 514/789; 518/700; 518/712; 585/250; 585/534; 585/538; 585/654	585/534			
US 6632484 B2	USPAT	20031014		Dialkyne compounds
428/1.1	252/299.61; 252/299.63; 549/369; 549/373; 549/374; 570/131;			
570/188; 585/534	585/534			
US 6602920 B2	USPAT	20030805		Method for
converting natural gas to liquid hydrocarbons		518/700	518/703;	
585/534; 585/535; 585/540; 585/541; 585/709	585/534			
US 6570046 B2	USPAT	20030527		Composition for
acetylene production and method for treating lime slurry by-product from acetylene				
production	585/534	585/638	585/534	
US 6552239 B1	USPAT	20030422		Synthesis of
cyclopropaneacetylene by a one-pot process		585/358	585/325; 585/357;	
585/359; 585/538				
US RE37947 E	USPAT	20021231		Aromatic polyenic
compounds and pharmaceutical/cosmetic compositions comprised thereof				
424/401	424/443; 424/450; 424/451; 424/464; 424/47; 424/489; 424/701;			
514/844; 514/846; 514/944; 560/100; 560/104; 560/106; 560/112; 560/113; 560/62;				
562/490; 562/495; 564/180; 564/182; 568/308; 568/328; 568/425; 568/444; 568/626;				
568/716; 568/763; 568/764; 568/780; 585/534	585/534			
US 6392112 B1	USPAT	20020521		Ordered
polyacetylenes and process for the preparation thereof			585/505	
526/285; 585/321; 585/325; 585/534	585/534			
US 6392110 B1	USPAT	20020521		Ordered
polyacetylenes and process for the preparation thereof			585/325	
585/505; 585/534; 585/538; 585/643	585/534			
US 6365792 B1	USPAT	20020402		Preparation of
acetylene and synthesis gas	585/539	585/534; 585/536; 585/538; 585/540		
585/534				

US 6359164 B1	USPAT	20020319	Process for the preparation of cyclopropylacetylene
585/534; 585/538	585/534	558/371	560/124; 562/506; 585/359;
US 6333443 B1	USPAT	20011225	Process for the production of methylacetylene and propadiene
585/601; 585/613	585/534	585/539	585/534;
US 6313364 B1	USPAT	20011106	Synthesis of cyclopropaneacetylene using a catalytic decarboxylation reaction
562/506	585/534	585/534	
US 6303194 B1	USPAT	20011016	Acetylene derivatives, and liquid-crystalline medium
549/369; 549/373; 549/374; 570/188	428/1.1	252/299.61; 252/299.63;	
US 6297410 B1	USPAT	20011002	Process for the preparation of cyclopropylacetylene
585/534; 585/538	585/534	570/101	560/124; 562/506; 585/359;
US 6235957 B1	USPAT	20010522	Process for the preparation of cyclopropylacetylene
585/538	585/534	585/534	585/534
US 6207864 B1	USPAT	20010327	Process for preparing cyclopropylacetylene
568/348	568/343; 568/364; 585/359; 585/534; 585/538	585/534	
US 6203724 B1	USPAT	20010320	Crosslinked cyclohexane derivatives, and liquid-crystalline medium
252/299.63; 349/182; 349/193; 556/9; 585/534	585/534	252/299.61	
US 6180835 B1	USPAT	20010130	Process for the preparation of cyclopropylacetylene derivatives
549/475; 556/482; 585/317; 585/534	585/534	568/800	549/416;
US 6130260 A	USPAT	20001010	Method for converting natural gas to liquid hydrocarbons
585/535; 585/540; 585/541; 585/709	585/534	518/703	585/534;
US 6127583 A	USPAT	20001003	Process for preparing acetylene derivative from a ketone compound
546/186; 548/300.1; 548/320.5; 548/347.1; 564/225; 564/509; 564/510; 568/939; 585/400; 585/534	585/534	568/716	544/334;
US 6072094 A	USPAT	20000606	Efficient synthesis of cyclopropylacetylene
585/538	585/359; 585/534	585/534	585/534
US 6049019 A	USPAT	20000411	Process for the preparation of cyclopropylacetylene
585/534	585/538	560/124; 562/506; 585/359;	
US 6042799 A	USPAT	20000328	Coproduction of acetylene and hydrocyanic acid from acrylonitrile
585/538; 585/539	585/534	423/372	585/534;
US 6028237 A	USPAT	20000222	Synthesis of cyclopropylacetylene
585/534	585/359	585/20; 585/358; 585/534; 585/641	

US 6002062 A	USPAT	19991214	Process for the preparation of ethynylcyclopropane
585/639; 585/640	585/534	585/534	585/20; 585/357; 585/638;
US 5990368 A	USPAT	19991123	Isomerization of allenes to alkynes with an alkaline-earth metal hydride containing catalyst
585/538	585/534; 585/664; 585/665; 585/666; 585/667; 585/668; 585/669;	585/534	585/670
US 5973092 A	USPAT	19991026	Cyclopentadiene derivatives for carbon-carbon composites
585/350; 585/359; 585/534; 585/600	585/534	526/285	585/291; 526/308;
US 5952537 A	USPAT	19990914	Preparation of cycloalkylacetylene compounds using dialkylaminomagnesium halide or bis(dialkylamino)magnesium
585/407; 585/408	585/534	585/534	585/20; 585/358; 585/359; 585/365;
US 5948945 A	USPAT	19990907	Prevention of spontaneous decomposition of gaseous acetylene
585/534		585/6	585/534; 585/833
US 5942652 A	USPAT	19990824	Ethane pyrolysis
585/537	585/534; 585/538; 585/539	585/534	585/534
US 5879585 A	USPAT	19990309	Liquid crystalline compound having alkynyl group, and liquid crystal compositions and liquid crystal display device therefrom
252/299.01	252/299.61; 252/299.63; 252/299.66; 252/299.67; 585/534	585/534	585/534
US 5789644 A	USPAT	19980804	Preparation of acetylene and synthesis gas
585/539; 585/540	585/534	585/373; 48/127.9; 48/216; 585/538; 585/539; 585/540	585/534
US 5744666 A	USPAT	19980428	Process for preparing an alkynyl fulvene group containing compound and said compound
585/22; 585/25; 585/26; 585/27; 585/422; 585/426; 585/429; 585/469; 585/505; 585/508; 585/534; 585/600; 585/638	585/534	585/23	585/534
US 5728908 A	USPAT	19980317	Process for preparing a bridged ligand and said bridged ligand
585/26; 585/27; 585/426; 585/429; 585/469; 585/505; 585/508; 585/534; 585/600; 585/638; 585/922	585/534	585/22; 585/23 585/24; 585/25; 585/26; 585/27; 585/426; 585/429; 585/469; 585/505; 585/508; 585/534; 585/600; 585/638; 585/922	585/534
US 5705167 A	USPAT	19980106	Aromatic polyenic compounds and pharmaceutical/cosmetic compositions comprised thereof
424/401	424/443; 424/450; 424/451; 424/464; 424/47; 424/489; 424/701; 514/844; 514/846; 514/944; 560/100; 560/104; 560/106; 560/112; 560/113; 560/62; 562/490; 562/495; 564/180; 564/182	526/285	424/401
US 5686520 A	USPAT	19971111	Substituted 1,4-diphenylbutadiynes and oligomers thereof as polymer fluidizers and resins
524/483	106/901; 252/363.5; 526/285		514/844; 514/846; 514/944; 560/100; 560/104; 560/106; 560/112; 560/113; 560/62; 562/490; 562/495; 564/180; 564/182
US 5663467 A	USPAT	19970902	Synthesis of cyclopropylacetylene
585/359	585/534	585/534	585/534
US 5650132 A	USPAT	19970722	Process for producing hydrogen from hydrocarbon
	423/650	423/445B; 423/651; 585/943	423/650

US 5436361 A	USPAT	19950725	Process for synthesizing enediynes
		556/466	549/20; 556/431; 556/465; 556/482; 556/489; 560/180; 585/365; 585/446; 585/452; 585/457; 585/505; 585/534 585/534
US 5231232 A	USPAT	19930727	Method of preparing C-18 ketones used in the manufacture of Vitamins E and K
		568/391	568/393
US 5219530 A	USPAT	19930615	Apparatus for initiating pyrolysis using a shock wave
		422/127	208/128; 208/48Q; 208/92; 261/76; 261/DIG.78; 422/151; 422/224
US 5185454 A	USPAT	19930209	Process for the preparation of symmetrical diarylacetylenes
		549/240	549/241; 549/246; 558/359; 560/64; 560/73; 562/405; 562/488; 564/155; 568/316; 568/34; 568/636; 568/646; 568/660; 568/729; 568/932; 570/128; 570/143; 570/184; 585/534 585/534
US 5162596 A	USPAT	19921110	Z-12-heptadecen-1- yne
		585/534	585/534
US 5082961 A	USPAT	19920121	Method for the preparation of an alkynyl compound
		556/466	585/505; 585/534 585/534
US 5062998 A	USPAT	19911105	Preparation of metallated and substituted alkynes
		260/665R	585/534; 585/538 585/534
US 4952742 A	USPAT	19900828	Preparation of polyunsaturated hydrocarbons
		585/534	585/600; 585/608; 585/609; 585/640 585/534
US 4886339 A	USPAT	19891212	Optical article containing a transmission medium exhibiting a high level of second order polarization susceptibility
		385/141	385/141
US 4795850 A	USPAT	19890103	Process for the production of a synthesis gas conversion catalyst
		585/500	585/534; 585/600; 585/700; 585/733; 585/900 585/534
US 4795835 A	USPAT	19890103	Solventless process for decontamination of polyacetylene
		585/809	562/600; 585/534; 585/833 585/534
US 4788379 A	USPAT	19881129	Production of acetylene
		585/809	585/534; 585/538; 585/539; 585/540; 585/834 585/534
US 4754097 A	USPAT	19880628	Metathesis of acetylenes
		585/534	585/534
US 4704377 A	USPAT	19871103	Metathesis of acetylenes
		502/167	502/162; 502/170; 502/171; 556/14; 556/27; 556/28; 556/31; 556/54; 556/57; 556/61; 556/7; 585/534 585/534
US 4701190 A	USPAT	19871020	Process for recovering methylacetylene and/or propadiene
		95/161 95/238; 95/240	
US 4698451 A	USPAT	19871006	Dirhenium metathesis catalysts
		585/534	502/162; 502/169; 502/171; 526/285 585/534

US 4604480 A	USPAT	19860805	Method for the preparation of sulfones and compounds containing carbon chains having conjugated unsaturation and the compounds resulting from such method
			556/445 204/157.79; 556/449; 556/465; 556/487; 568/626; 568/667; 568/687; 568/700; 568/843; 570/135; 570/136; 570/189; 570/217; 570/226; 585/357; 585/534; 585/601 585/534
US 4570028 A	USPAT	19860211	Process for producing acetylene using a homogeneous mixture
			585/540 123/3
US 4567005 A	USPAT	19860128	Allylation of carbon acids
			558/378 560/190; 560/211; 568/312; 568/388; 568/927; 568/943; 585/534 585/534
US 4536603 A	USPAT	19850820	Production of acetylene from coal by contact with a combustion gas
			48/210; 585/534; 585/537; 585/943 585/534
US 4515429 A	USPAT	19850507	Nonlinear and bistable optical waveguide devices
			385/4 385/122
US 4492591 A	USPAT	19850108	Method and apparatus for recovering hydrogen from a feed comprising methane, ethylene, hydrogen and acetylene
			62/632 62/932; 62/935
US 4467118 A	USPAT	19840821	Process for the catalytic synthesis of conjugated dienes from dialkylallylamines
			568/687 549/356; 549/429; 568/626; 568/813; 568/873; 568/875; 568/903; 585/469; 585/534; 585/603 585/534
US 4465833 A	USPAT	19840814	Process for preparing ethynylated benzoic acid derivatives
			544/246 544/247; 546/350; 548/309.4; 548/310.4; 548/310.7; 549/29; 549/506; 558/357; 558/371; 558/378; 560/100; 560/102; 560/104; 568/426; 568/435; 568/463; 568/705
US 4441923 A	USPAT	19840410	Integrated process using non-stoichiometric sulfides or oxides of potassium for making less active metals and hydrocarbons
			75/433 423/414; 423/560; 423/566.2; 423/578.4; 423/641; 423/657; 585/500; 585/534; 585/638; 585/700; 585/733; 75/589; 75/597; 75/605; 75/636; 75/641; 75/656; 75/668; 75/695; 75/704; 75/706 585/534
US 4431263 A	USPAT	19840214	Novel nonlinear optical materials and processes employing diacetylenes
			385/143 264/1.24; 385/122; 385/129
US 4427595 A	USPAT	19840124	Catalyst composition to effect metathesis of acetylenes
			556/22 556/13; 556/19; 556/20; 556/30; 556/58; 585/534; 987/21 585/534
US 4384158 A	USPAT	19830517	Method for the preparation of cis-11-hexadecen-1-yne
			585/534 585/505 585/534
US 4374290 A	USPAT	19830215	Process for preparing vitamin K
			585/16 552/294; 552/299; 585/534; 987/21 585/534

US 4367363 A	USPAT 585/809	19830104 585/534; 585/538; 585/539; 585/540; 585/834 585/534	Production of
US 4362670 A	USPAT 558/378	19821207 558/388; 560/190; 560/211; 568/314; 568/346; 568/388; 568/943; 585/534	Allylation of carbon
US 4358629 A	USPAT 585/538	19821109 204/171; 208/401; 208/402; 585/241; 585/537; 585/539	Method of producing
US 4320065 A	USPAT 556/60 585/534; 987/21	19820316 552/294; 552/299; 556/59; 560/108; 560/255; 568/633; 585/534	Process for preparing
US 4317905 A	USPAT 549/415	19820302 549/416; 560/261; 568/596; 568/597; 568/598; 568/855; 568/857; 568/873; 568/903; 585/254; 585/534; 585/601	Preparation of compounds containing two conjugated double bonds cis-cis and cis-trans
US 4317659 A	USPAT	19820302 48/209 423/439; 423/646; 48/210; 48/216; 585/534	Production of hydrogen, acetylene and ammonia gases from lithium reaction with hydrocarbon materials 585/534
US 20040002612 A1	US-PGPUB 556/127	20040101 585/505; 585/506; 585/512; 585/513 585/505	Process for producing fluorine-containing, polymerizable styrene monomer and intermediates used in same
US 6806325 B2	USPAT	20041019 502/162; 526/171; 526/308; 526/309; 556/136; 556/137; 556/21	High metathesis activity ruthenium and osmium metal carbene complexes 526/92 502/152;
US 6528605 B1	USPAT 526/135; 526/147; 526/293; 526/294; 526/295; 526/313; 585/19; 585/25; 585/428; 585/505	20030304 585/505	Diyne-containing (co)polymer, processes for producing the same, and cured film 526/285
US 6521806 B1	USPAT 585/512	20030218 585/511; 585/513	Process for producing
US 6399842 B1	USPAT 428/411.1; 428/495; 428/500; 428/521	20020604 585/505	Ordered
US 6392112 B1	USPAT 526/285; 585/321; 585/325; 585/534	20020521 585/505	Ordered
US 6392110 B1	USPAT 585/505; 585/534; 585/538; 585/643	20020521 585/505	Ordered
US 5744666 A	USPAT 585/22; 585/25; 585/26; 585/27; 585/422; 585/426; 585/429; 585/469; 585/505; 585/508; 585/534; 585/600; 585/638	19980428 585/505	Process for preparing an alkynyl fulvene group containing compound and said compound 585/23

US 5728917 A	USPAT	19980317	Polymer
depolymerization using ruthenium and osmium carbene complexes			585/653
525/938; 526/171; 585/505; 585/509; 585/511; 585/514; 585/538; 585/600;			
585/601; 585/627; 585/645; 585/654; 585/665; 585/832	585/505		
US 5728908 A	USPAT	19980317	Process for preparing
a bridged ligand and said bridged ligand		585/23 585/22; 585/24; 585/25;	
585/26; 585/27; 585/426; 585/429; 585/469; 585/505; 585/508; 585/534; 585/600;			
585/638; 585/922	585/505		
US 5436361 A	USPAT	19950725	Process for
synthesizing enediynes	556/466	549/20; 556/431; 556/465; 556/482;	
556/489; 560/180; 585/365; 585/446; 585/452; 585/457; 585/505; 585/534 585/505			
US 5264511 A	USPAT	19931123	Polymers of bis
(ethynylstyryl) benzene and related monomers	526/285	526/247;	
526/248; 526/251; 528/481; 528/503; 568/583; 568/585; 568/631; 568/635; 568/646;			
568/647; 568/659; 568/660; 568/661; 568/928; 570/182; 570/200; 585/25; 585/436;			
585/505	585/505		
US 5162562 A	USPAT	19921110	Preparation of
metallated and substituted alkynes	556/478	568/687; 585/505	
585/505			
US 5082961 A	USPAT	19920121	Method for the
preparation of an alkynyl compound	556/466	585/505; 585/534	
585/505			
US 5053580 A	USPAT	19911001	Metal oxide powders,
their mixtures, metal mixed oxide powders, their mixtures and their use in catalytic			
dehydrogenation of hydrocarbons	585/624	585/505; 585/506; 585/629;	
585/630; 585/631; 585/658; 585/662	585/505		
US 4952292 A	USPAT	19900828	Process for
manufacturing 2,4-hexadiyne-1,6-diol	204/544	568/855; 568/856	
US 4886339 A	USPAT	19891212	Optical article
containing a transmission medium exhibiting a high level of second order polarization			
susceptibility	385/141		
US 4871868 A	USPAT	19891003	Production of
substituted acetylenic compounds	549/416	554/153; 554/154; 554/223;	
554/224; 558/55; 562/598; 568/687; 568/812; 568/813; 568/873; 585/505	585/505		
US 4835272 A	USPAT	19890530	Process for formation
of base and light-sensitive material	544/158	260/665R; 546/181; 546/290;	
546/350; 548/136; 548/152; 548/165; 548/202; 548/445; 548/480; 549/506; 549/80;			
560/104; 564/218; 564/305; 564/90			
US 4822940 A	USPAT	19890418	Process for converting
light hydrocarbons and/or natural gas to liquid hydrocarbons		585/415	
585/400; 585/416; 585/500; 585/505; 585/538; 585/943	585/505		
US 4672144 A	USPAT	19870609	Flame conversion of
methane to more reactive hydrocarbons	585/540	208/106; 585/403;	
585/503; 585/505; 585/537; 585/539; 585/615; 585/636; 585/652; 585/943 585/505			

US 4672143 A	USPAT	19870609	Flame reactor for
cracking hydrocarbons	585/540	208/106; 585/403; 585/503; 585/505;	
585/537; 585/539; 585/615; 585/636; 585/652; 585/943	585/505		
US 4644085 A	USPAT	19870217	Rooperol and its
derivates	568/729	536/18.1; 536/4.1; 562/465; 568/308; 568/325;	
568/613; 568/646; 568/648; 568/650; 568/652; 568/715; 568/807; 568/813; 568/849;			
568/857; 585/505	585/505		
US 4515429 A	USPAT	19850507	Nonlinear and
bistable optical waveguide devices	385/4	385/122	
US 4503205 A	USPAT	19850305	Method of making
soluble polyacetylenic and polyaromatic polymers	4	526/221	526/237;
526/285; 526/348; 528/217; 528/381; 528/392; 528/396; 585/505; 585/510; 585/520			
585/505			
US 4431263 A	USPAT	19840214	Novel nonlinear
optical materials and processes employing diacetylenes			385/143
264/1.24; 385/122; 385/129			
US 4384158 A	USPAT	19830517	Method for the
preparation of cis-11-hexadecen-1-yne		585/534	585/505
585/505			
US 4258079 A	USPAT	19810324	Preparation of
continuous films of diacetylenic polymers		427/487	427/240; 427/350;
427/379; 427/385.5; 526/285; 585/19			
US 4177220 A	USPAT	19791204	1-Octen-7-yne
production	585/505	585/514	585/505